# The Water Connection January 1999

## ON THE WATER FRONT



Currently, groundwater wells provide water for all of Tucson Water's 600,000 customers. But, continued reliance on groundwater threatens the future of our community. For more than 50 years, we have been pumping too much groundwater, causing water levels to fall up to 4 feet a year – more than 200 feet in some areas. What does that mean? It means that if we keep pumping groundwater wells, our few remaining riparian areas will disappear, just like they have along most of our desert streams.

Over pumping groundwater also means the ground surface can sink ... permanently. No amount of rain soaking down to the water table can cause the ground to rise again. Subsidence is already occurring and unless we reduce over pumping, we'll see cracked foundations, broken utility lines, and major costs to our community.

Reducing our dependence on groundwater and protecting our environment are two reasons Tucson Water is planning to demonstrate that recharged Colorado River water blended with groundwater can be used in our homes and businesses. Tucson Water is seeking four neighborhoods to represent all of our customers in a voluntary program to use water recovered from the City's renewable water project west of Tucson. For more information about this voluntary demonstration project call 791-4331.

David Modeer Director, Tucson Water

### SAVE WATER AND REDUCE YOUR WATER BILL

Conserving water at home means helping our environment and saving dollars off your water bill each month. Tucson Water's Zanjero Program staff (water managers) will visit your home and show you how you can save water and lower your water bill. They'll even help you install fixtures (including automatic irrigation timers) that will use less water and they'll show you where you're using the most water and give you tips on how to conserve.

It's a free service from Tucson Water. Call 791-4556 for an appointment with the Zanjero Program staff.

## BEFORE YOU PLANT, **GET SOME WATERSMART INFORMATION**

Tucson Water is again sponsoring a series of FREE workshops to help you design, install, operate and maintain a water-thrifty drip irrigation system for your landscape or garden. Workshops are also offered on how to use your irrigation timer and how to select plants for your landscape.

#### March 27, 1999

8:30-10:30 am Mini-Oasis Plant Selection and Design

Drip Irrigation Design 11:00-1:00 pm

and Installation

2:00-4:00 pm Irrigation Timer Use

Pima County Cooperative Extension 4210 N. Campbell Ave., Tucson

#### **February 6, 1999**

8:30-10:30 am Drip Irrigation Design and Installation **Irrigation Timer Use** 11:00-1:00 pm Mini-Oasis Plant 2:00-4:00 pm Selection and Design

Tucson Botanical Garden 2150 N. Alvernon Way, Tucson

#### May 1, 1999

9:00-11:00 am Mini-Oasis Plant Selection and Design 11:30-1:30 pm Irrigation Timer Use Drip Irrigation Design 2:30-4:30 pm and Installation

Bear Canyon Branch Library 8959 E. Tanque Verde Rd., Tucson

#### February 27, 1999

9:00-11:00 am	Irrigation Timer Use
11:30-1:30 pm	Mini-Oasis Plant
•	Selection and Design
2:30-4:30 pm	Drip Irrigation Design
•	and Installation
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Las Campanas Social Center

565 W. Bell Tower Dr., Green Valley

#### June 5, 1999

Mini-Oasis Plant		
Selection and Design		
Drip Irrigation Design		
and Installation		
Irrigation Timer Use		
Tucson Botanical Garden		
2150 N. Alvernon Way, Tucson		

#### March 13, 1999

8:30-10:30 am	Irrigation Timer Use
11:00-1:00 pm	Mini-Oasis Plant
•	Selection and Design
2:00-4:00 pm	Drip Irrigation Design
•	and Installation

Tohono Chul Park

7366 N. Paseo Del Norte. Tucson

Seating is limited at workshops and reservations are required. Reserve early to ensure a seat. Contact Tucson Water at 791n 4331 for reservations.

The Saturday workshops are sponsored by the Pima County Cooperative Extension in cooperation with Tucson Water

## **Coliform Bacteria Testing Results**

#### October 1998

Click this box to see the graphic representation of the October 1998 Groundwater Quality Report. (When you are finished there, you will need to use your browser's BACK button to return to this page)

To give you a more accurate measurement of the water quality in your neighborhood, the Tucson Water service area has been divided into 10 zones based on differences in water pressure and water quality. For a detailed description of the zone boundaries, call 791-4331.

One part per million (ppm) is the same as one second of time in 11.6 days.

## Why should bacteria count matter to me?

Millions of people around the world suffer from waterborne diseases caused by bacteria. This is rare in the United States, where most water utilities disinfect the water and monitor and test for microorganisms. Tucson Water adds a sufficient level of chlorine to keep the groundwater we use safe for drinking, cooking and bathing.

#### What's a coliform, anyway?

Coliforms are bacteria which are not harmful themselves but may indicate the presence of other, potentially harmful bacteria.

## Why should the chlorine level in my water matter to me?

Chlorine kills bacteria and germs that can grow in drinking water and prevents waterborne disease. Chlorine is the most widely used water disinfectant in North America. Tucson Water continually tests water at more than 240 locations to make sure chlorine levels stay within the target range.

## **Groundwater Quality Report**

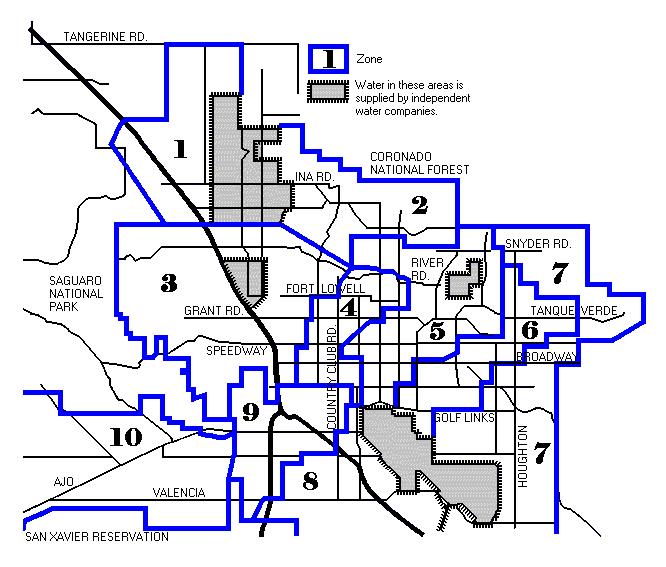
#### October 1998 System Water Quality Zone 2 3 4 5 7 9 6 8 10 Wide Sodium 47 54 47 Average 43 37 33 33 30 43 41 40 26-44 31-53 27-58 (ppm) 35-48 27-123 24-40 20-40 38-58 39-87 39-44 20-123 Range Mineral Content Average 332 283 333 228 219 239 219 328 265 214 262 (ppm) Range 226-446 232-321 167-628 180-388 164-284 195-287 154-281 254-471 209-362 206-223 154-628 Hardness Average 153 129 141 100 99 114 105 167 101 78 117 (ppm) 91-235 103-146 56-318 72-187 72-131 81-140 67-136 110-279 69-143 73-87 56-318 Range На Average 7.9 7.9 7.8 8.0 7.9 7.8 7.8 7.9 7.8 7.9 8.0 (units) 7.6-8.2 7.9-8.1 7.5-8.3 7.6-8.1 7.4-8.2 7.4-8.2 7.4-8.2 7.4-8.1 7.7-8.1 7.8-8.2 7.4-8.3 Range Temperature Average 83 84 83 83 82 80 82 81 84 85 83 (deg F) 77-88 81-86 77-93 79-88 75-90 75-86 79-88 75-86 73-88 81-89 75-93 Range

## What does all this mean to me?

**Sodium.** The American Heart Association recommended standard for daily sodium intake is 3,000 milligrams. In general, the amount of sodium ingested from drinking water is a small part of a person's overall dietary intake. People on severely restricted sodium diets may want to consult their health care provider about sodium levels in their water.

**Mineral content** measures the amount of total dissolved solids, or **TDS**, in the water. Mineral content can often affect the taste of the water. For example, many people can detect a salty taste when TDS is above 500 parts per million. The federal government has recommended an aesthetic standard of 500 ppm or less for mineral content in drinking water. **Hardness** measures the ease with which soap can be lathered. The softer water is, the more easily it produces a soap lather. Water hardness also determines the degree of water spotting on dishes, plumbing fixtures and bath areas. In addition, most home water conditioners are set based on the hardness of the water entering the home. For the most part, Tucson's groundwater is considered moderately hard.

**pH**. Swimming pool chemistry, some fish aquariums and ponds, and certain water conditioner systems require you to control the pH of the water. pH is a measurement of acidity. Waters with a pH below 7.0 are considered acidic. The federal secondary, or aesthetic, standard for pH is 6.5 to 8.5.



The information shown on this map was collected at 244 sampling points.

